

PRODUCT FEATURE

Set the stage for success!

Implementing the Stages framework: Assistive technology assessment, alternate assessment, and access to curriculum

By Madalaine Pugliese

How do you implement a long-term program that addresses assessment, accountability, and developmentally appropriate curriculum for learners with significant special needs? Traditional methods of assessment and curriculum design are often inadequate. The Stages framework and tools offer effective ways to assess what your learners know, demonstrate their progress over time, choose appropriate skill-building curriculum software, and describe learners using a common language with Individual Education Plan (IEP) and curriculum planning teams.

No Child Left Behind (NCLB) legislation and the Individuals with Disabilities Education Act (IDEA) mandate that all students with disabilities be included in each state's measures of accountability. The intent is to ensure that all learners have access to the same standard curriculum. In theory, these laws bring equal access rights to all public school learners from birth through age 21.

Administrators must now make curriculum and program

decisions based on evidence of student performance. Schools must show that all learners are making progress within the standards. Rather than developing alternate curricula for learners with special needs, we must now design modifications and accommodations within a standard curriculum to make it available to all learners.

While the spirit of equal access to educational practice is evident, there is no agreement on protocols for designing curriculum modifications and creating performance-based portfolios for alternate assessment. Because guidelines

vary from state to state, there is no universal process for collecting portfolio elements, determining relevant content, or defining evaluation procedures. Likewise, there is no single method of curriculum design or approach to appropriate differentiated curriculum. However, it is apparent that states are moving away from subjective tools, such as checklists, and toward more objective ways of collecting primary evidence generated by the student.

The Stages framework facilitates reliable assessment and curriculum access through assistive technology.

An Overview of Stages

Stages is a development framework of cognitive and language development supported by a book, assessment software, reporting and graphing tool, and curriculum software titles from many publishers, organized into a searchable on-line database.

Language Foundation

Stage One: Cause and Effect – working toward device mastery through simple cause and effect

Stage Two: Language Readiness – exposure to nouns, verbs, and attributes in several categories

Stage Three: Emerging Language – making choices for the first time to identify objects

Academic Discovery

Stage Four: Early Concepts – identifying numbers, letters, colors, shapes

Stage Five: Advanced Concepts and Communication – reading, math, problem solving

Stage Six: Functional Learning – working toward independence through activities of daily living

Stage Seven: Written Expression – mastering independent composition

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Steps to using the Stages framework

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1. Read the Stages book, the basis for the entire framework. The carefully researched practices show how to reach and educate learners with special needs and help you identify and understand a learner's developmental stage or functioning level.

2. Use the Stages Assessment Software to identify learners' skills and ideal environment for learning or assessment. Instructional in nature, the assessment activities provide constructive feedback and opportunities for independent choices. The activities cover skills needed for learning and key curriculum areas <http://www.assistivetech.com/stages_pdfs/stageskills.pdf>. Documents that correlate Stages skills to each state's curriculum standards are available at <<http://www.assistivetech.com/p-stages-correlations.htm>>.

3. At the end of each activity, save the report. It contains valuable data about time spent, choices made, response accuracy or work product, input method, prompt type, and time/date stamp. Use Observation guidelines and forms to note additional data that the computer can't capture, such as learner behaviors and verbal responses.

4. Consult the software feature comparison charts <<http://www.assistivetech.com/charts>> to select third party curriculum software that directly addresses the learner's cognitive or academic needs. The searchable database of recommended titles helps you make cost-effective decisions about appropriate practice in the classroom or at home.

5. Give the learner opportunities to practice needed skills using recommended software and off-computer activities described in the Stages book. Refer to the book to determine when the learner is ready for a different Stage.

6. Use Stages Report Wizard to process Stages reports, plot graphs, and analyze content. The summaries it generates serve as primary evidence of the learner's achievement of specific goals. They are valuable to review at IEP meetings, include in a learner's alternate assessment portfolio, or share with families to show learner progress.

This article spotlights eight special educators around the country who have adopted Stages as a way to find out what their students know, document their progress over time, plan appropriate curricula, and make smart spending decisions. You will see how their use of these tools has made a differ-

ence in the way they teach and the success of their learners.

Using Stages with learners with intensive special needs

These three educators work with learners who are medically fragile and difficult to assess. Stages helps them uncover what their learners know, document even the smallest indicators of progress, and plan an appropriate curriculum for them.

Mark Coppin is the Assistive Technology Manager for the Anne Carlsen Center for Children (ACCC), a residential school for children with disabilities in Jamestown, North Dakota. ACCC educates 56 children from three to 21 years of age. These children, most nonverbal, have severe cognitive impairments in addition to medically fragile conditions and autism spectrum disorders. The staff uses Stages at the Center and also evaluates children attending public schools in communities throughout North Dakota.

Mark describes the Center's commitment to Stages: "Stages gives us invaluable information to determine where each student is, the direction to proceed, what tools will get us there, and how to evaluate how we are doing. We feel so strongly that Stages provides us with this direction that the senior administration and governing board fully support the use of the program and have built it into our organization's strategic plan."

Mark describes how using Stages can lead to unexpected discoveries. "People tend to approach evaluations with preconceived notions. With Stages, we often find that the preconceptions were wrong. We have evaluated students who were thought to have no understanding of cause and effect, but the Stages evaluation showed otherwise. Almost every Stages evaluation brings what I call 'WOW' moments, when the student shows us something we didn't think he or she knew. We typically find splinter skills that we didn't know the student had and may discover that the child didn't know something that we assumed he or she knew."

For instance, we assessed a 6-year-old boy with autism who was nonverbal for basic computer access. His public school classroom teachers thought computer work wouldn't be possible. He would randomly hit spots on a touch screen and only when prompted. He appeared uninterested and wouldn't stay on task. When Coppin started

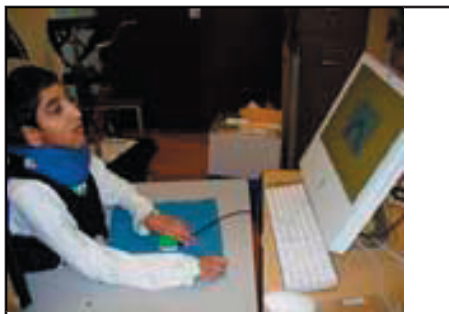


Figure 1.

up Stages, the boy immediately began attending, making deliberate and accurate selections using a touch screen. He flew through Stages One and Two and the team quickly determined that he was a Stage Three learner. The preconceived belief was that he couldn't sit and work. "Wow, were they wrong," Coppin said. "You could see by the classroom teachers' faces that we had a 'WOW' moment."

Debbie Larsson's students at the ACCEPT Collaborative in Framingham, Massachusetts, are adolescents with multiple disabilities and profound cognitive challenges. Learning takes a long time and progress is



Figure 2.



Figure 3.

measured in very small increments. She uses Stages to assess and document these small changes in performance using switches to activate the computer and to engage in cause and effect curriculum-based activities.

Each student completed an initial Stage One assessment to gather baseline data for switch use, identify sensory abilities, and document developmental level. After several repeated assessments, Stages has shown their slow improvement over time. Learners are completing tasks in less time; the increased length of each switch hold is reflected in a decreased number of presses needed to finish an activity (using a press and hold strategy). After reviewing the data, Debbie can engage each student in various switch activities, both on and off the computer.

Tanwi enjoys videos and loves to be entertained. Initially, she preferred that the TV be turned on for her and resisted physical assistance in using a switch. Her hand and arm movements were random and seemed to lack intention. Visual attention was minimal. She showed little interest in the computer and fussed at tasks unless an adult was close by. After a year of practicing using a switch multiple times a day, the annual Stages assessment showed that Tanwi was now able to use a press and hold technique to engage in the assessment tasks. She also showed an increase in interest in visual stimuli on the computer. This progress is also evident in the way she uses switches to listen to music, play with toys, and engage in computer tasks as part of her curriculum. (See figure 1)

Debbie notes, "Stages reports contain information that is simple to read and compare. It makes it easy to write IEP goals, determine next steps, and develop practice tasks and activities for use both on and off the computer."

As Special Education Liaison for the Lynn (Massachusetts) Public Schools, **Janine Struyde** provides educational services for two students described as medically fragile with severe and profound disabilities in their homes. Their learning challenges include cognitive, language, sensory, and motor functioning delays.

Using Stage One software, these children are successfully developing mastery of an input device through cause-and-effect actions (see figures 2 and 3). Janine uses Stages to monitor, measure, share, and report their progress. She uses the saved data to analyze the results and compare performance over time. Using Stages Report Wizard, she can graphically represent, clearly explain, and share learner progress with both the home care staff and the educational team.

"I always feel satisfied that I have all the 'meat' I need to feed my report and justify my recommendations using Stages as my assistive technology and curriculum assessment tool."

Using Stages as an assistive technology evaluation and software selection tool

Two educators in Massachusetts use Stages with older students who are addressing curriculum areas in Stages Four through Seven.

In her private practice, EdTech Solutions, **Karen Janowski** uses Stages data to make recommendations for adaptive access devices, as well as for software and classroom activities for curriculum alignment. As a consultant, she evaluates a wide range of clients.

Amy, a 28-year-old woman with Down Syndrome, works full time as a bagger at a local supermarket and lives in assisted living in a small apartment with family nearby. Karen worked with Amy using Stage Six assessment software, which assesses functional learning skills. Amy enjoyed using the software and responded very well to the presentation. She related to the people shown completing various tasks and was pleased with herself when she succeeded in different activities. She maintained focus and attention and was able to complete all the activities in one sitting. The results of using Stages helped Karen determine appropriate software for future tasks.

Ten-year-old Adam attends a non-graded classroom at a private placement. He has multiple diagnoses, including global encephalopathy, oral motor dyspraxia, right hemisphere deficits, ADHD, and auditory processing problems; he scores cognitively in the mildly impaired range. Karen used Stages Four and Five assessment software activities to determine Adam's cognitive skills. He quickly became comfortable with the software and seemed to benefit from the structure and support that the activities provided. He was able to attend for 35 minutes using Stages activities, which is reported to be longer than he typically attends to tasks. He demonstrated excellent mouse skills and was clearly engaged by the activities. Based on Adam's cognitive measure, Karen recommended a variety of computer-based curriculum activities.

Kathy Marple serves as the Assistive Technology Specialist for ACCEPT Collaborative in Framingham. She uses Stages, especially Stage Seven, as her assistive technology evaluation tool.

John is a fifth grade student who attends a private school with classes of about 15 students. He has dysgraphia and language processing challenges. His keyboarding is average; he knows the location of all keys, but is not a touch-typist. John's written work is not always well organized and he makes many spelling mistakes and grammar errors. Kathy used Stages to assess John's writing abilities as part of an assistive technology evaluation. Stage Seven assessment activities showed that John can be a successful writer when he uses a computer and can listen to what he writes. If he can't hear his grammar mistakes, he skips over them. Referring to the Stages database of recommended software, Kathy selected a talking word processing program that was compatible with the laptop he would be receiving.

Using Stages to identify learner skills and plan curriculum on a regional level

Darlene Brodbeck is the Assistive Technology Specialist for Area Cooperative Educational Services (ACES) in Connecticut. ACES provides educational services to students from 26 surrounding districts who cannot be accommodated in their home districts because of their severe disabilities.

Darlene's work entails providing access to the curriculum across all populations as well as technology services delivery and long-term planning. "We now have approximately 350 students between the ages of four and 21 identified on the Stages continuum. This information gives us an accurate description of our students and allows us to communicate quickly about their functioning levels. Using Stages to collect evidence of learner performance is a valuable process because we learn what the students can do rather than what we think they can do. We now make programming and product purchasing decisions based on how many students are at each Stage."

"The on-line software recommendations for curriculum software are invaluable in helping us decide what to purchase. I set up classrooms using a Universal Design for Learning model, with software and devices available to meet the students' needs. Every

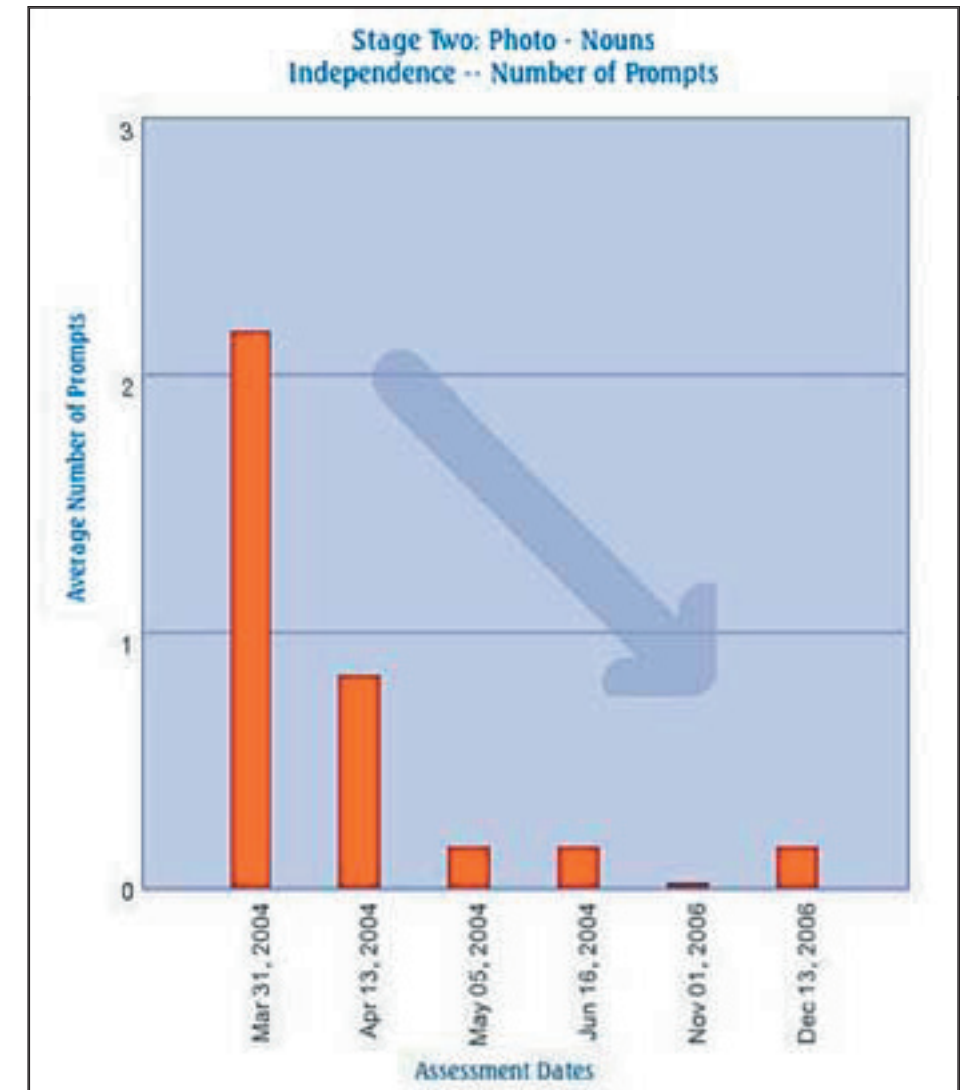


Figure 4.

classroom that requires alternative access has a touch screen, switch and switch interface, and an IntelliKeys alternate keyboard. Clicker 5, from Crick Software, is a great tool for creating practice activities. We can author this program at many different levels to align with the students' curriculum. The process of linking programs with the appropriate Stage helps teachers make the connection between assessment and curriculum.

"ACES has chosen Stages as one of the approved alternative assessments. Using Stages and Stages Report Wizard fits in nicely with legislation about what we need to be doing with alternative assessment, collecting decision-making data, and reporting real outcomes. Stages Report Wizard is a wonderful way to document some of the successes we had."

Using Stages to collect data for alternate assessment portfolios

Gwen Bertrand's classroom is part of the Concord Area Special Education Collaborative in Massachusetts. Her students' disabilities include Down syndrome, autism, attention deficit disorder, and intellectual impairment. Gwen says, "Stages is the most important tool we use to meet the requirements of our statewide alternate assessment because it is easy to collect data and to report progress using Stages Report Wizard."

Gwen uses Stages to collect primary evidence of student progress in the annual mandated Massachusetts Comprehensive Assessment System—Alternative Assessment (MCAS-Alt) for grades 6–8. Stages has been a valuable tool to meet the MCAS-Alt requirements because of its ease of use and data collection system. Gwen uses Stages activities that are specific to what is required

for the MCAS-Alt (for example, numeration, geometry, patterns, etc.). There are very specific requirements for MCAS-Alt portfolios; they must include date, accuracy, and level of independence, measures that are built right into the Stages Report Wizard data collection and reporting capabilities.

Using Stages to gain information in AAC device evaluations

Paula Walser, Coordinator of Instructional Technology – CESA 6 and Statewide Consultant for the Wisconsin Assistive Technology Initiative (WATI), explains her program. “We use Stages as one of our tools for alternate assessment. We keep Stages software in our statewide library, and assistive technology consultants around the state use additional copies. As an Augmentative and Alternative Communication (AAC) consultant, I also use Stages, linking it to AAC devices we use for assessment.”

A primary way in which Paula and her WATI colleagues use Stages is as a tool in the area of AAC. Many speech language pathologists must assess the language abilities of children with limited expressive speech and language skills. “With Stages, the child just needs to be able to access the computer and does not need to be able to point or respond verbally to a prompt to complete the assessment activities,” Paula explains.

Many students visit evaluation centers that help determine an appropriate AAC system. However, these visits are one-time snapshots of the students, who often leave with recommendations that may include a dynamic display communication system. Although these students may be future dynamic display device users, their current cognitive and language abilities would be better matched to a system that provides multiple messages or levels of messages. The Stages framework helps teachers align different types of augmentative systems to specific learners, making the device selection easier and a better match to the student’s abilities.

“I’m a big fan of the Stages curriculum software search tool on the Web,” notes Paula. “Teachers of students at Stages One or Two, who have previously had limited software choices, now have an excellent resource of software titles appropriate to their specific learners’ unique needs.”

WATI staff has used this database to align the software in their lending library to each

Stage. After a student completes a Stages assessment, the teacher and therapists know exactly what software they have available for day-to-day intervention.

Conclusion

The key strengths of Stages are its ability to uncover skills and to show learner progress over time. As the Stages Report Wizard (figure 4) illustrates, it may take a couple of years to show a small increase in independence, represented here by a decrease in the number of prompts needed. Each improvement, no matter how small, is a critical step toward the successful achievement of that learner’s goals.

These educators have all adopted Stages as a philosophy and a methodology, implementing successful programs for learners educated at home, in classrooms, on a regional as well as a statewide level. At the center is a process that facilitates designing effective goals, assessing learners’ skills, selecting appropriate software and extension activities to provide access to the curriculum or community, demonstrating progress over time, and improving ways of communicating about learners. Throughout the country, implementation strategies differ, but the essence is the same: all learners can be successful when a reliable and consistent long-term approach is put into practice.

Details

Madalaine Pugliese is the Director of the Assistive Technology Graduate Degree Program at Simmons College in Boston, MA, and the author of the Stages framework.

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